

Claims

1. A method of activating call forwarding for a mobile station, comprising the steps of:
  - monitoring a measure of received signal strength at said mobile station;
  - automatically transmitting a first feature code from said mobile station to a wireless network when said monitored measure of received signal strength falls below a threshold level, said first feature code activating call forwarding for said mobile station such that incoming calls are directed to a previously programmed directory number;
  - continuing to monitor signal strength at said mobile station during a period when call forwarding is activated;
  - automatically transmitting a second feature code from said mobile station to a wireless network when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding.
2. The method of claim 1, wherein said step of monitoring a measure of received signal strength comprises the step of monitoring the ratio  $E_c/I_o$ , wherein  $E_c$  is a measure of carrier strength and  $I_o$  is a measure of interference.
3. The method of claim 1, wherein said step of monitoring a measure of received signal strength comprises the step of monitoring a signal to noise ratio of a received signal from a base transceiver station in a cellular telephone network.
4. The method of claim 1, wherein said mobile station comprises a cellular telephone.

5. The method of claim 1, wherein the previously programmed directory number is changeable by a user of said mobile station by interactively entering said directory number.
6. The method of claim 1, wherein said feature code is sent to said wireless network over an  
5 access channel.
7. The method of claim 1, wherein the threshold level is determined by an element in said wireless network and transmitted to said mobile station.
- 10 8. The method of claim 1, wherein the threshold level varies depending on the type of mobile station.
9. The method of claim 1, wherein the threshold level lies in the range of -85dB to -90 dB.
- 15 10. The method of claim 1, wherein the first feature code is transmitted if the monitored measure of received signal strength remains below the threshold level for a predetermined period of time.
11. A wireless telephone comprising:  
20 circuitry monitoring a measure of received signal strength from a wireless base transceiver station;

programmable logic providing instructions for automatically transmitting a first feature code from said wireless telephone to a wireless network activating call forwarding when said circuitry determines that the received signal strength falls below a threshold level; and

programmable logic providing instructions for automatically transmitting a second feature code from said wireless telephone to a wireless network deactivating call forwarding when said circuitry determines that the received signal strength, having previously fallen below a threshold level, rises above said threshold level.

12. The wireless telephone of claim 11, wherein said wireless telephone operates in a CDMA network and wherein said circuitry monitors the ratio  $E_c/I_o$ , wherein  $E_c$  is a measure of carrier strength and  $I_o$  is a measure of interference.

13. In a cellular telephony network comprising a plurality of base transceiver stations and roaming mobile stations subscribing to said network, the improvement comprising:

providing a service control node in said cellular telephony network that activates and deactivates a call forwarding service for said roaming mobile stations, wherein said call forwarding service is activated and deactivated by transmission of first and second feature codes from said roaming mobile stations, respectively, and further wherein said first and second feature codes are transmitted when a monitored measure of received signal strength at said mobile stations falls below, and rises above, a threshold level, respectively.